NOAA Ecosystem Goal Team

National Oceanic and Atmospheric Administration

NOAA's Ecosystem Approach to Management

Mission

Protect, restore, and manage the use of coastal and ocean resources through an ecosystem approach to management

Expected Long-Term Outcomes

1) **Healthy and productive coastal and marine ecosystems that benefit society.**
2) **A well-informed public that acts as a steward of coastal and marine ecosystems.**

Why a NOAA Ecosystem Goal?

The National Oceanic and Atmospheric Administration (NOAA) has significant responsibilities for managing ocean and coastal areas and living and non-living marine resources. These responsibilities include managing fisheries, ocean and coastal areas, vulnerable species and habitats, and protecting these resources and habitats from pollution and invasive species. To attain long-term sustainability of trust resources, NOAA is committed to moving toward an ecosystem-based approach to management of the Nation's coastal and marine ecosystems. This will require increased understanding of these complex systems as well as improved integration and collaboration.

Over the past several decades, NOAA has been collecting the knowledge, experience, and information needed to holistically manage marine and coastal resources, keeping the ecosystem in mind. NOAA's Ecosystem Goal focuses the efforts of four line offices on this ecosystem-based approach: NOAA's National Ocean Service (NOS), NOAA's National Marine Fisheries Service (NMFS), NOAA's Office of Oceanic and Atmospheric Research (OAR), and NOAA's National Environmental Satellite, Data and Information Service (NESDIS).

NOAA's vision is for a future in which society understands that healthy coastal and marine ecosystems are fundamental to our economic future.

Current Management Efforts		Future Management Efforts
Individual species		Ecosystems
Small spatial scale		Multiple scales
Short-term perspective		Long-term perspective
Human: independent of ecosystem		Human: integral to ecosystem
Management divorced from research		Adaptive management
Managing commodities		Sustaining production potential for goods and services

For further information:

Visit the Ecosystem Goal Web site: http//ecosystems.noaa.gov/

Contact the Ecosystem Goal Office: 301.713.9075

NOAA ECOSYSTEM GOAL

What is an Ecosystem?

An ecosystem is a geographically specified system of organisms (including humans), their environment, and the processes that control their dynamics.

Artist's rendering of an Alaska ecosystem and its major components. Ecosystems are full of complex connections between organisms, their environment, and the processess that drive the system. Image courtesy of Gulf of Alaska Ecosystem Monitoring and Research (GEM).

Ecosystem Approach to Management: NOAA Vision

Collaborating with stakeholders

Vision: Stakeholders and NOAA voluntarily and jointly strategize solutions to ecosystem issues. Stakeholders retain current decision making authority within the context of joint strategies.

Incrementally progressing towards EAM

Vision: EAM gradually evolves as ecosystem information, understanding, and comfort with collaborative strategic goals and objectives improve.

Adaptive management

Vision: Collaboratively developed management strategies are tailored to unique conditions and issues in each ecosystem and sub-ecoregion, monitored for successes and failures, and adapted to achieve desired results.

Geographically specifying management areas

Vision: NOAA, collaborating with stakeholders and partners, develop a common vocabulary and plan joint strategies to meet desired ecosystem health and benefits based on NOAA's 10 regional ecosystems. Collaboration identifies sub-ecoregions and transboundary issues across ecosystems and political boundaries, including international boundaries.

Accounting for ecosystem knowledge and uncertainties and considering multiple external influences

Vision: NOAA and its partners, considering baseline ecosystem assessments, understand the incremental and cumulative impacts of their activities on ecosystems. Uncertainty is accounted for in decision-making.

Balancing diverse societal objectives

Vision: Stakeholder needs in each ecosystem are understood and met, while maintaining a healthy ecosystem. Conflicts among user groups are resolved by and among the stakeholders.

NOAA: Collaborating for Success

Federal Agencies

- Seeking collaboration with Federal agencies
- Facilitating voluntary efforts
- Acknowledging existing federal efforts on ecosystem issues
- Learning from federal agency experiences
- Leveraging existing interagency collaboration mechanisms to develop regional EAM governance strategies

Regional Fishery Management Councils (RFMC)

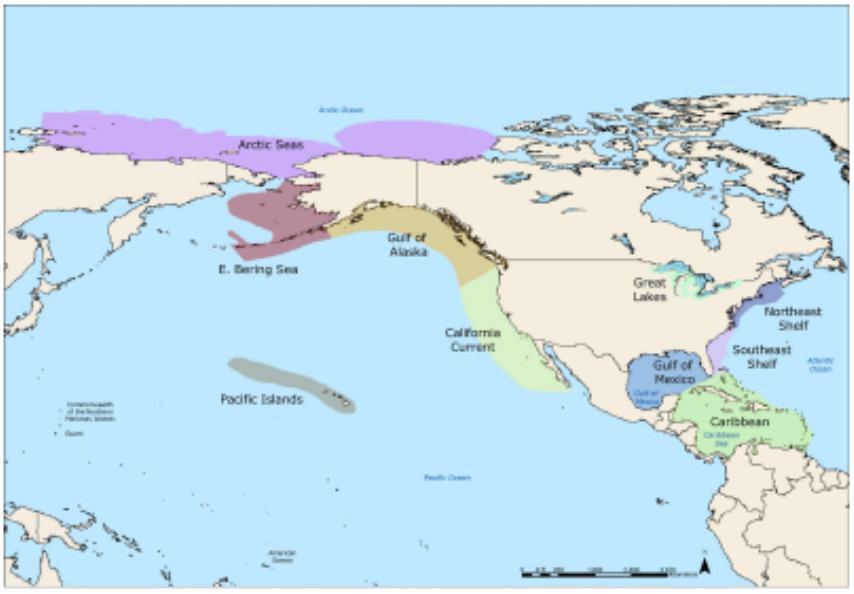
- Involving RFMCs in regionally-based ecosystem approaches to management
- Using RFMCs during the development of collaborative governance structures

Regional Commercial and Recreational Fishing Industries

- Recognizing humans as part of an ecosystem
- Improving ecosystem health to achieve optimal human benefits
- Broadly focusing on human activities and their impacts
- Recognizing commercial and recreational fishing industries as major stakeholders in any collaboration mechanism
- Collaborating with commercial and recreational fishing industries to set and accomplish objectives to benefit ecosystems

International

- Collaborating with nations on regional management plans



NOAA regional ecosystems of the United States, based on Large Marine Ecosystems.

States/Tribes

- Integrating states and tribes in the development of an ecosystem approach to management
- Facilitating state and tribal participation in regional ecosystem-based management approaches
- Helping states and tribes address their needs
- Creating incentives for state and tribal involvement
- Making it easier for states and tribes to collaborate with NOAA

NOAA ECOSYSTEM GOAL

Non-governmental organizations (NGO)

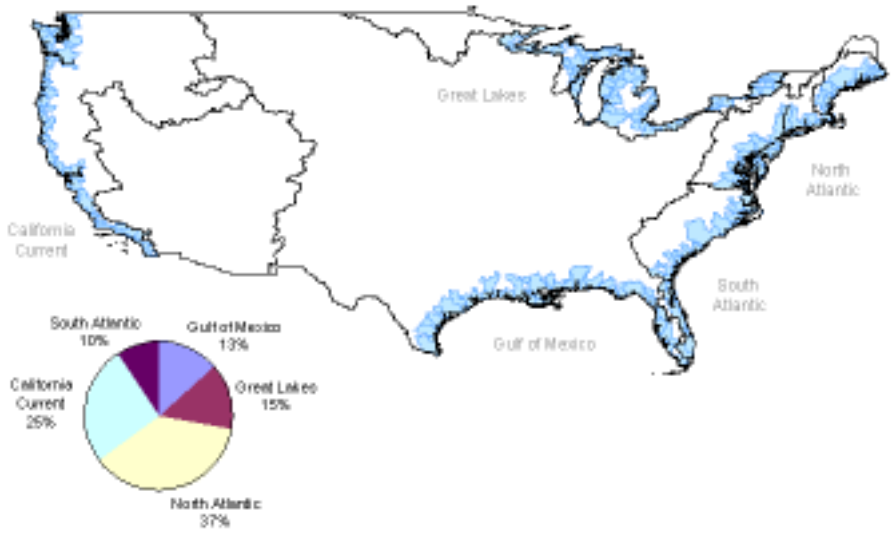
- Acknowledging and leveraging existing ecosystem-based management, published coastal and aquatic indicators, and NGO facilitation activities among stakeholders and agencies
- Learning from NGO experiences and fostering regional collaboration and facilitation
- Seeking assistance with regional education and outreach for EAM

Academia

- Recognizing contributions of academic institutions to research, education, and outreach related to EAM
- Partnering with institutions to facilitate research, education, and outreach related to EAM

Public

- Providing "one-stop shopping" for environmental problem-solving
- Facilitating contacts with state, tribal, and federal agencies
- Getting citizens and industry "plugged in" to the regional ecosystem governance mechanism
- Providing public education and outreach programs
- Acknowledging the public as stewards of marine and coastal ecosystems



Regional Ecosystem	CDA and EDA Population in 2000
Gulf of Mexico	16621632
Great Lakes	18723701
North Atlantic	47348802
California Current	32405675
South Atlantic	12175118
Total	127274928

Population Data Source: U.S. Census Bureau 2000

Ecosystems include coastal watersheds, the inland extent of diadromous fish habitat, and the human populations within these areas.

Future Steps

NOAA is in the process of improving its ecosystem products and services by integrating and standardizing observation systems, GIS tools, ecosystem modeling, and communications.

NOAA will develop regional ecosystem teams to coordinate and integrate NOAA efforts internally and to promote collaboration with NOAA partners. These regional ecosystem teams and collaborating partners will:

1) Determine sub-ecoregions within each regional ecosystem
2) Revisit the inland boundary and other boundary issues for each ecosystem
3) Begin to establish agreed-upon ecosystem health and sustainability indicators
4) Initiate discussions regarding potential collaboration mechanisms